



Substance Abuse and Mental Health Services Administration DISASTER TECHNICAL ASSISTANCE CENTER

RESOURCE LIST

The Impact of Disaster on the Occupational Health of First Responders and Other Disaster Workers

Prepared by the Substance Abuse and Mental Health Services Administration (SAMHSA) Disaster Technical Assistance Center (DTAC), ESI, under contract with the Emergency Mental Health and Traumatic Stress Services Branch, Center for Mental Health Services, SAMHSA.

Peer-Reviewed Journal Articles

Betts, K. (2002). WTC dust may cause respiratory problems. *World Trade Center. Environmental Science and Technology*. 36(13):273A.

"Fireman's cough," developed by first responders at the World Trade Center, is explained by toxicological analysis.

Bram, J. (2003). New York City's economy before and after September 11. *Current Issues in Economics and Finance*. 9(2):1-8.

This article considers if the job and income losses after the September 11 attacks are due to terrorism or the national recession. The authors analyze statistics from the New York State Department of Labor and the United States Department of Commerce.

Chen, L.C., and Thurston, G. (2002). World Trade Center cough. *Lancet*. 360(Suppl):37-8.

The Department of Environmental Medicine at New York University School of Medicine analyzed the dust particles in the air in New York City after the World Trade Center towers collapsed to assess the health risk to citizens in the area. The authors determined that although many citizens complained of the "fireman's cough," long-term health risks are nonexistent.

Clark, P. (2002). The Occupational Safety and Health Administration's response to the World Trade Center attack. *American Journal of Industrial Medicine*. 42(6):550-2.

Although the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) Manhattan office was destroyed in the World Trade Center attack, OSHA responded promptly. This article describes the safety and environmental caution procedures that were implemented and monitored during the cleanup.

Peer-Reviewed Journal Articles (continued)

Landrigan, P.J. (2001). Health consequences of the 11 September 2001 attacks. *Environmental Health Perspectives*. 109(11):A514-4.

This editorial urges the strengthening of disease tracking systems in the United States in case of bioterrorism. The author also discusses the dangers of inhaled dust following the collapse of the World Trade Center buildings and the chemicals and substances, which may have been released into the air.

Lange, J.H. (2003). Cough and bronchial responsiveness in firefighters at the World Trade Center site. *New England Journal of Medicine*. 348(1):76-7.

This is a collection of letters to the editor concerning cough and bronchial responsiveness and exposure to dangerous substances during the World Trade Center collapse and cleanup.

Levin, S., Herbert, R., Skloot, G., Szeinuk, J., Teirstein, A., Fischler, D., Milek, D., Piligan, G., Wilk-Rivard, E., and Moline, J. (2002). Health effects of World Trade Center site workers. *American Journal of Industrial Medicine*. 42(6):545-7.

This article summarizes the common health problems reported by first responders, iron workers, and community members following the collapse of the World Trade Center towers. Issues include airborne irritants and respiratory problems, depression, and posttraumatic stress disorder symptoms.

Lioy, P.J. and Gochfeld, M. (2002). Lessons learned on environmental, occupational, and residential exposures from the attack on the World Trade Center. *American Journal of Industrial Medicine*. 42(6):807-17.

This article looks at the problems encountered by occupational health workers at the World Trade Center site, and offers solutions for future disasters. Improved battery-operated, portable air samplers, established methods for dust collection, blueprints of the site, and a system to determine site-specific chemical assessments are all areas in need of development.

Malievskaya, E., Rosenburg, N., and Markowitz, S. (2002). Assessing the health of immigrant workers near Ground Zero: Preliminary results of the World Trade Center day laborer medical monitoring project. *American Journal of Industrial Medicine*. 42:548-549.

The study looked at the health problems of immigrant workers who cleaned the office buildings surrounding the World Trade Center after September 11, finding that they suffered from many of the same symptoms as the firemen working at Ground Zero. The study reports that these workers were not provided health care to counter short-term respiratory effects, and they were not given proper safety equipment to protect them from airborne substances.

Manuel, J.S. (2001). NIEHS responds to World Trade Center attacks. *Environmental Health Perspective*. 109(11):A526-7.

Two months following the September 11 attacks, the National Institute of Environmental Health Sciences (NIEHS) reports on the occupational health dangers facing the rescue workers, and possible solutions to prevent long-term medical problems.

Peer-Reviewed Journal Articles (continued)

Prezant, D.J., Weiden, M., Banauch, G.I., McGuiness, G., Rom, W.N., Aldrich, T.K., and Kelly, K.J. (2002). Cough and bronchial responsiveness in firefighters at the World Trade Center site. *New England Journal of Medicine*. 347(11):806-15.

This study assessed the prevalence of the “World Trade Center cough” in workers from the Fire Department of New York City. The study examined 9,914 firefighters, and results indicated that intense, short-term exposure was associated with bronchial responsiveness and cough.

Spadafora, R. (2002). Firefighter safety and health issues at the World Trade Center site. *American Journal of Industrial Medicine*. 42(6):532-8.

This article discussed the physical dangers faced by the firefighters working at the World Trade Center site throughout the cleanup process, and the safety mechanisms put into place for their protection. A checklist of potential hazards is included, as well as the process of shifting Ground Zero from a rescue effort to a recovery operation and crime scene.

Stephenson, J. (2002). Researchers probe health consequences following the World Trade Center attack. *Journal of the American Medical Association*. 288(10):1219-21.

The author raises concerns regarding the lack of respiratory tract protection provided for hired workers, other than firefighters, cleaning up the World Trade Center site. A health questionnaire distributed to residents within a “hot zone” also be compared to a matching control group living more than five miles from the disaster.

SAMHSA and Other Publications

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Impact of September 11 attacks on workers in the vicinity of the World Trade Center—New York City. 51(Spec No):8-10.

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Psychological and emotional effects of the September 11 attacks on the World Trade Center—Connecticut, New Jersey, and New York, 2001. 51(35):784-6.

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Injuries and illness among New York City Fire Department rescue workers after responding to the World Trade Center attacks. 51 (Spec No):1-5.

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Occupational exposures to air contaminants at the World Trade Center disaster site—New York, September-October, 2001. 51(21):453-6.

SAMHSA and Other Publications (continued)

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Self-reported increase in asthma severity after the September 11 attacks on the World Trade Center—Manhattan, New York, 2001. 51(35):781-4.

Centers for Disease Control and Prevention

Morbidity and Mortality Weekly Report

(2002) Use of Respiratory Protection Among Responders at the World Trade Center Site—New York City, September 2001. 51 (Spec No):6-8.

National Institute for Occupational Safety and Health Fact Sheet

DHHS (NIOSH) Publication Number 2003-143

Protecting workers at the World Trade Center site: Response from the National Institute for Occupational Safety and Health. (available at www.cdc.gov/niosh/02-143.html)

National Institute for Occupational Safety and Health Fact Sheet

DHHS (NIOSH) Publication Number 2003-142

Protecting workers from anthrax infection: Response from the National Institute for Occupational Safety and Health. (available at <http://www.cdc.gov/niosh/02-142.html>)

U.S. Department of Labor

Bureau of Labor Statistics

Local Area Unemployment Statistics

Impact of the events of September 11, 2001, on BLS Local Area Unemployment Statistics Estimates. December 6, 2002.

U.S. Department of Labor

Bureau of Labor Statistics

State and County Employment and Wages from Covered Employment and Wages

Employment in areas of Manhattan affected by the events of September 11, 2001. October 22, 2001.

SAMHSA's National Mental Health Information Center

Center for Mental Health Services

Impact of September 11, 2001 Events on Substance Use and Mental Health in the New York Area